AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A test tube type discrimination apparatus comprising:

first and second electronic cameras which pick up <u>first and second </u>images of a plurality of test tubes held in a test tube rack one by one~~, the first electronic camera picking up an image~~ from ~~an opening ~~<u>a longitudinal direction and a lateral direction </u>of each of the test tubes ~~and the second electronic camera picking up an image from a side thereof~~;

a pattern recognition unit which receives data of the <u>first and second </u>images picked up by the first and second electronic cameras and extracts an edge of each of the <u>first and second</u> images to recognize ~~a test tube pattern ~~<u>opening and side patterns </u>of each of the test tubes ~~including opening and side patterns of each of the test tubes~~;

a standard pattern memory which stores ~~the ~~<u>plural standard </u>opening and side patterns of the test tubes ~~as standard patterns ~~<u>of plural types of test tubes</u>; and

a comparison determination unit which compares the ~~test tube pattern ~~<u>opening and side patterns </u>recognized by the pattern recognition unit and the <u>plural </u>standard <u>opening and side</u> patterns of the test tubes stored in the standard pattern memory to determine a type of each of the test tubes.

2. (Withdrawn) A test tube type discrimination apparatus comprising:

a single electronic camera which picks up images of a plurality of test tubes held in a test tube rack one by one from between an opening and a side of each of the test tubes;

a pattern recognition unit which receives data of the images picked up by the electronic camera and extracts an edge of each of the images to recognize a test tube pattern of each of the

test tubes including an integral inclined pattern of opening and side patterns of each of the test tubes;

a standard pattern memory which stores integral inclined patterns of opening and side patterns of the test tubes as standard patterns; and

a comparison determination unit which compares the test tube pattern recognized by the pattern recognition unit and the standard patterns of the test tubes stored in the standard pattern memory to determine a type of each of the test tubes.

3. (Original)   The test tube type discrimination apparatus according to claim 1, wherein the first and second electronic cameras each employ a CCD as an image pickup device.

4. (Withdrawn) The test tube type discrimination apparatus according to claim 2, wherein the electronic camera employs a CCD as an image pickup device.

5. (Original) The test tube type discrimination apparatus according to claim 1, further comprising a sorting unit which sorts the test tubes whose images are picked up, according to a type based on determination results of the comparison unit.

6. (Withdrawn) The test tube type discrimination apparatus according to claim 2, further comprising a sorting unit which sorts the test tubes whose images are picked up, according to a type based on determination results of the comparison unit.

7. (New) A test tube type discrimination apparatus comprising:

at least one electronic camera which picks up a corresponding at least one image of a plurality of test tubes held in a test tube rack one by one;

a pattern recognition unit which receives data of the at least one image picked up by the at least one electronic camera and extracts an edge of the at least one image to recognize opening and side patterns of each of the test tubes;

a standard pattern memory which stores plural standard opening and side patterns of the

test tubes of plural types of test tubes; and

a comparison determination unit which compares the opening and side patterns

recognized by the pattern recognition unit and the plural standard opening and side patterns of

the test tubes stored in the standard pattern memory to determine a type of each of the test tubes.